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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/271,905	03/18/1999	TSUTOMU TAKAHASHI	1767-43	4929

7590 10/18/2002

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EXAMINER

WONG, ALLEN C

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 10/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/271,905

Applicant(s)

TAKAHASHI, TSUTOMU *m*

Examiner

Allen Wong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5 and 12 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-11 and 13-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 7/29/02 have been fully read and considered but they are not persuasive.

With regards to applicant's remarks on page 6, line 26 to page 7, line 2, applicant asserts that Kondo does not teach a "selecting device for selecting one of the movement vectors generated by a plurality of generating devices", as disclosed in claims 1 and 7, and a "selecting process if selecting one of the movement vectors generated by a plurality of generating processes", as disclosed in claims 8 and 14. The examiner respectfully disagrees. Kondo meets the broad limitations of the claims. As stated in the rejection below, Kondo's Figure 11A-1, elements 12a-12e are considered to be the plural generating devices where each generating device 12a-12e generates a motion or movement vector. Note that each result from the plural generating devices 12a-12e is correspondingly labeled as 13a-13e. Kondo's Figure 11B shows that elements 18-20 are selecting devices that function as a selecting device for selecting one of the movement vectors generated by the plural devices 12a-12e of Figure 11A-1. Eventually, Kondo outputs or selects the final, best resultant motion vector at element 27 in Figure 11B.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 6-11, 13, 14 and 15-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Kondo (5,576,772).

Regarding claim 7, Kondo discloses an image encoding apparatus comprising

(a) a movement vector generating apparatus for generating a movement vector for a movement compensation by means of an inter-frame prediction, when encoding a preset image information including an image of a plurality of frames by using the movement compensation (please peruse abstract and also see figures 11A and 11B where Kondo discloses the detection and generation of motion vectors between a present frame and a reference frame, ie. inter-frame prediction), said apparatus comprising:

a plurality of generating devices each for generating the movement vector corresponding to a search range and a search accuracy between one frame and another frame (figure 11A-1 where there are plural generating devices 12a-12e), for each pixel block which is located within said one frame respectively in the image information and includes a plurality of pixels (see figure 10C), said generating devices respectively using search ranges different from each other and search accuracies different from each other (col.11, lines 37-47; Kondo discloses that an appropriate search range will be performed depending on the hierarchical stages, where there are three hierarchical stages as noted in line 41); and

a selecting device for selecting one of movement vectors generated by said generating devices, in accordance with characteristics of the image in said each pixel

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block, and then outputting the selected movement vector corresponding to said each pixel block (figure 11B, elements 18-20 are selecting devices that select one of the movement vectors generated by said generating devices elements 12a-12e and elements 18-20 also outputs the selected movement vector corresponding to said each pixel block, and eventually the best motion vector will be coming out at element 27),

(b) a compensating device for performing the movement compensation on the basis of the selected movement vector outputted from the selecting device, to output a compensation signal (figure 1, element 64), and

(c) an encoding device for encoding the image information on the basis of the compensation signal (note in figure 1, Kondo discloses the image information is encoded after the image information has been motion compensated by element 64 and goes directly to the subtractor 63 that leads to the DCT transform for encoding in the frequency domain).

Note claims 1, 2, 8, 9, 14, 15, 19, 20 and 24 have similar corresponding elements.

Regarding claims 3, 6, 10 and 13, 16, 18, 21 and 23, Kondo discloses the selecting device outputting the selected movement vector (figure 11B, elements 18-20 are selecting devices that select one of the movement vectors generated by said generating devices elements 12a-12e and elements 18-20 also outputs the selected movement vector corresponding to said each pixel block).

Regarding claims 4, 11, 17 and 22, Kondo discloses the first adding device (figure 11B, element 16c), the second adding device (figure 11B, element 16d), the

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standardizing device (figure 11B, element 17) and the selecting device for comparing the standardized first absolute value sum with the standardized second absolute sum and outputting the selected vector (figure 11B, element 19).

Allowable Subject Matter

3. Claims 5 and 12 are allowed over the prior art.
4. The following is a statement of reasons for the indication of allowable subject matter: dependent claims 5 and 12 were objected to in paper number 4, and all of the limitations of the claims, including the intervening limitations, were rewritten into an independent form.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (703) 306-5978. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (703) 305-4856. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Allen Wong
Examiner
Art Unit 2613

AW
October 2, 2002


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
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